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EXAMINER

ALSTRUM ACEVEDO, JAMES HENRY

ART UNIT	PAPER NUMBER
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1616

MAIL DATE	DELIVERY MODE
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02/09/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,803	Applicant(s) FISCHER ET AL.	
	Examiner JAMES H. ALSTRUM ACEVEDO	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/15/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 3, and 8 are pending. Applicants amended claims 1, 3, and 8. Applicants previously cancelled claims 2 and 4-7. Receipt and consideration of Applicants' amended claim set, new IDS, and arguments/remarks submitted on October 15, 2010 are acknowledged. All rejections/objections not explicitly maintained in the instant office action have been withdrawn per Applicants' claim amendments and/or persuasive arguments. Applicants are advised that a different examiner is examining the instant office action. Applicants' claim amendments and new IDS have necessitated new grounds of rejection set forth below (e.g. under 35 U.S.C. § 112, 1st and 2nd paragraphs).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement (new matter). The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

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had possession of the claimed invention. Applicants amended independent claim 1 to replace the term “soft fruits” with “berries” and indicated that support could be found at page 2, lines 3-4 and 7-8 of Applicants’ specification. It is noted that at page 2, lines 3-4 of the specification the following are recited: “...currant, gooseberry, raspberry, blackberry, strawberry, blueberry; nuts, such as, for example, almonds, pistachios...” The cited portion of Applicants’ specification is considered to lack support for the concept of the claimed method being practiced by application to “berries” in lieu of other soft fruit, because botanical berries are understood to be limited to a simple fruit having seeds and pulp produced from a single ovary, such as currants, bearberry, grapes, bananas, watermelons, and pumpkins (See the attached Wikipedia article, entitled, “Berry”- accessed on February 6, 2011 at <http://en.wikipedia.org/wiki/Berry>). Thus, the mere inclusion of “berry” or “berries” in the name of a fruit is not a reliable indicator of whether a particular fruit is actually a berry in the botanical meaning of the term. For the aforementioned reasons, Applicants’ claim amendments are found to introduce new matter.

The remaining claims are rejected as depending from a rejected claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation “spruces or firs” in line 2. There is insufficient antecedent basis for this limitation in the claim. Dependent claim 8 depends directly from independent

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claim 1, which recites conifers and makes no mention of either spruces or firs. Thus, there is no proper antecedent basis for "spruces" or "firs" in dependent claim 8 as currently written.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue, and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wachendorff et al. ("BAJ 2740, a novel broad spectrum acaricide," Proceedings of the Brighton Crop Protection Conference-Pests and Diseases, 2000, pp.53-58) (of record), as

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evidenced by the Wikipedia article, entitled, “Berry” (accessed on February 6, 2011 at <http://en.wikipedia.org/wiki/Berry>) (“Wikipedia”).

Applicant Claims

Applicants claim a method of controlling acaricids (e.g. ticks and mites) comprising contacting a compound of formula (I) with hops, berries, or conifers, wherein the compound of formula (I) is applied at a concentration of 0.0048% active ingredient per hectare to 0.0144% active ingredient per hectare.

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

Wachendorff et al. teach **BAJ 2740 (also called spirodiclofen) as a novel acaricide with a broad spectrum of activity, long lasting efficacy, favorable environmental profile and good plant compatibility in all relevant crops** (see the abstract). BAJ 2740 (also called spirodiclofen) is **useful on crops such as citrus, stone and pome fruits, grapes, and nuts**, for example (see the abstract). Table 5 discloses the application of BAJ 2740 on grapes (see page 57). **BAJ 2740 provides excellent control of important mite pests such as Panoncythus spp., Phyllocopiruta spp., Brevipalpus spp., and Aculus and Tetranychus species** (see the abstract).

Wikipedia evidences that grapes are “botanical berries” and that citrus fruits are “modified berries.” Thus, Wachendorff’s teachings encompass the application of the compound of formula (I) to berries to control acarids.

Ascertainment of the Difference Between Scope the Prior Art and the Claims (MPEP §2141.012)

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Wachendorff et al. lacks the teaching of the application of a specific concentration of spirodiclofen to berries to control mites (i.e. acarids). This deficiency is considered to be prima facie obvious as explained below.

**Finding of Prima Facie Obviousness Rationale and Motivation
(MPEP §2142-2143)**

It would have been prima facie obvious to a person of ordinary skill at the time of the instant invention for the ordinary skilled artisan to optimize the concentration of spirodiclofen applied to berries to control mites, because the ordinary skilled artisan would know that spirodiclofen is effective for controlling mites per the teachings of Wachendorff. With the knowledge that spirodiclofen is effective in controlling mites on berries (e.g. grapes and citrus), it would have been within the skill of the ordinary artisan to determine the optimal concentration of spirodiclofen needed to effectively control of mites on berries. The ordinary skilled artisan would have been motivated to optimize the concentration of spirodiclofen applied to berries, to obtain the least effective mite-control method (i.e. use of excess spirodiclofen would be more expensive). The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention. Applicants' specification data is noted, but does not overcome the instant rejection, because it does not demonstrate that

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the recited concentration range of spiroadiclofen results in unexpected efficacy compared to other concentrations of spiroadiclofen. This conclusion is based upon the knowledge that spiroadiclofen was taught in the art as being effective for the control of mites (i.e. acarids) on berries (e.g. grapes and citrus). Therefore, the claimed invention would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

Response to Arguments

Applicant's arguments with respect to claims 1 and 3 have been considered but are moot in view of the new ground(s) of rejection.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wachendorff et al. (of record), as evidenced by the Wikipedia article, entitled, "Berry" (accessed on February 6, 2011 at <http://en.wikipedia.org/wiki/Berry>) ("Wikipedia") as applied to claims 1 and 3 above, and further in view of Fischer et al. (U.S. Patent No. 5,262,383) and Weidhaas (of record), as evidenced by the online article, entitled, "Invasive Mite Identification" (accessed on February 6, 2011 at keys.lucidcentral.org/keys/v3/mites/Invasive_Mite_Identification/key/Tetranychinae/Media/Html/Oligonychus.htm) ("Invasive Mites") and "family Tetranychidae" (accessed on February 6, 2011 at www.thefreedictionary.com/family+Tetranychidae) ("Tetranychidae").

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Applicant Claims

Applicants claim a method of controlling acaricids (e.g. ticks and mites) comprising contacting a compound of formula (I) with spruces or firs (i.e. different specific kinds of conifers), wherein the compound of formula (I) is applied at a concentration of 0.0048% active ingredient per hectare to 0.0144% active ingredient per hectare.

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

The teachings of Wachendorff et al. and Wikipedia are set forth above.

Fischer teaches compounds of formula (I) that encompass the compound of formula (I) recited in Applicants' claims, **which exhibit** insecticidal, **acaricidal**, fungicidal, and herbicidal **properties** (e.g. abstract). Fischer's sub-genus of formula (Ib) more closely encompass Applicants' compound of formula (I) (c.f. the structure depicted at the top of every page of Table 9, e.g. at columns 115-116) and **Fischer explicitly discloses Applicants' compound of formula (I) (i.e. compound Ib-119 in the table at columns 115-116) and a homolog thereof (i.e. compound Ib-40 at columns 103-104).** The invented compounds are taught as being suitable for controlling animal pests, particularly insects and **arachnids encountered in agriculture, forests, in the protection of stored products and materials, etc.** (col. 127, lines 30-38). It is noted that arachnids belong to the phylogenic class of Arachnida, which includes **ticks and mites.** **Fischer discloses examples of several specific genera of the order of Acarina (i.e. the order including mites and ticks) against which Fischer's compounds are effective, including Tetranychus spp** (col. 128, lines 52-58).

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“Invasive mites” establishes that the genus of *Oligonychus* belongs to phylogenic family of Tetranychidae.

Tetranychidae establishes that the phylogenic family of Tetranychidae includes the genus of *Tetranychus*.

Weidhaas teaches that spruce mites (*Oligonychus ununguis*) attacks only conifers including spruce and fir (pp 10, left column).

**Ascertainment of the Difference Between Scope the Prior Art and the Claims
(MPEP §2141.012)**

Wachendorff et al. lacks the teaching of the application of spiroticlofen to conifers to control acarids. This deficiency is cured by the teachings of Fischer and Weidhaas, as evidenced by “Invasive mites” and Tetranychidae.

**Finding of Prima Facie Obviousness Rationale and Motivation
(MPEP §2142-2143)**

It would have been prima facie obvious to a person of ordinary skill at the time of the instant invention for the ordinary skilled artisan to apply spiroticlofen to conifers, such as spruce or mites, because spiroticlofen is taught as exhibiting broad spectrum activity against acarids (Wachendorff) and is known to be suitable in the control of pests of the order of Acarina commonly encountered in forests (Fischer), including those of the genus of *Tetranychus* (Fischer). Invasive mites and Tetranychidae establish that the genera of *Tetranychus* and *Oligonychus* belong to the same phylogenic family of Tetranychidae. Therefore, given the teachings of the prior art that spiroticlofen exhibits broad spectrum activity against mites,

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including mites of the Tetranychus genus, it would have been obvious to try to control mites of the Oligonychus genus with spiroticlofen, because both the genera of Tetranychus and Oligonychus belong to the same phylogenic family. Thus, the ordinary skilled artisan would have had a reasonable expectation of successfully controlling mites of the genus of Oligonychus.

Regarding the specific concentration recited in Applicants' claims, it would have been within the skill of the ordinary artisan to determine the optimal concentration of spiroticlofen needed to effectively control mites on conifers, such as spruces and firs. The ordinary skilled artisan would have been motivated to optimize the concentration of spiroticlofen applied to berries, to obtain the least effective mite-control method (i.e. use of excess spiroticlofen would be more expensive). The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention. Applicants' specification data is noted, but does not overcome the instant rejection, because it does not demonstrate that the recited concentration range of spiroticlofen results in unexpected efficacy compared to other concentrations of spiroticlofen. This conclusion is based upon the knowledge that spiroticlofen was taught in the art as being effective for the control of mites (i.e. acarids) on berries (e.g. grapes and citrus). Therefore, the claimed invention would have been prima facie

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obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

Conclusion

Claims 1, 3, and 8 are rejected. No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Alstrum-Acevedo whose telephone number is (571) 272-5548. The examiner is on a flexible schedule, but can normally be reached on M-F ~10am~5:30 pm, and Saturdays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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